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| 10/791,914 | 03/03/2004 | Lee-Yin Chee | SE0044 | 3848 |
| 53362 | 7590 | 03/25/2010 | | |
| HAMILTON & TERRILE, LLP - AMD | | | EXAMINER | |
| P.O. BOX 203518 | | | CEHIC, KENAN | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

tmunoz@hamiltonterrile.com

| | | |
|------------------------------|--------------------------------------|------------------------------------|
| Office Action Summary | Application No. 10/791,914 | Applicant(s) CHEE ET AL. |
| | Examiner KENAN CEHIC | Art Unit 2473 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 04 December 2009.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 2-6 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 2-6 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claim 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kersley et al (US 2003/0172177) in view of Buechler et al (US 2002/0190356) as evidenced by English, ADA 95: The Craft of Object-Oriented Programming, “Glossary”.

For claim 2, Kersley discloses A method for use in verification of a device comprising (see section 0007 “verification of a device under test”):
providing a plurality of packet classes (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035;

section 0043 “tests...generate packets...combination of Ethernet, IPv4....”);
a plurality of packet classes (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, Ipv4....”);
generating a packet (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, Ipv4....”; section 0047), testing the device (see sections 0004-7 “generating packets to simulate...packet traffic patterns...to test and verify a device under test”; sections 0029-33)
generated packet (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, Ipv4....”).

For claim 3, Kersley discloses A method for use in verification of a device (see section 0007 “verification of a device under test”) comprising:

providing a plurality of packet classes (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, IPv4....”);
generating a packet (see fig. 2; see various packet classes; section 0005-7 “verify a device

...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, Ipv4....”; section 0047) and testing the device (see sections 0004-7 “generating packets to simulate...packet traffic patterns...to test and verify a device under test”; sections 0029-33);

For claim 4, Kersley discloses A method for use in verification of a device (see section 0007 “verification of a device under test”) comprising: providing a plurality of packet classes (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, IPv4....”);

generating a packet (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, Ipv4....”; section 0047); testing the device (see sections 0004-7 “generating packets to simulate...packet traffic patterns...to test and verify a device under test”; sections 0029-33);

For claim 5, Kersley discloses A method for use in verification of a device (see section 0007 “verification of a device under test”) comprising:

(a) providing a plurality of packet classes (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035;

section 0043 “tests...generate packets...combination of Ethernet, IPv4....”);
(c) generating a packet (see fig. 2; see various packet classes; section 0005-7 “verify a device ...packets can be built...selecting standard packet description headers and packet payloads...from a packet data base....”; section 0018, 0021-22, 0035; section 0043 “tests...generate packets...combination of Ethernet, Ipv4....”; section 0047);

For claim 6, Kersley discloses repeating the steps of a and c (see section 0043, 0048, 0061; multiple packets of generated using classes).

Kersley does not explicitly discuss:

For claim 2, providing a flag, which may be of a first or a second state, for each of the plurality of test types; if the flag of the test type of the accessed test is in the first state, changing the flag of the test type of the accessed test to the second state

For claim 3, providing a flag, which may be of a first or a second state, for each of the plurality of test types; if the flag of the test type of the accessed test is in the first state, testing; if the flag of the test type of the accessed test is in the second state, not testing.

For claim 4, providing a flag, which may be of a first or a second state, for each of the plurality of tests; if the flag of the test type of the accessed test is in the second state, not testing.

For claim 5, providing an injection flag, which may be of a first or a second state, for each of the plurality of test types; (e) if the injection flag of the packet class of the test is in the first state, testing and setting the injection flag of the test type of the accessed / completed test to the second state.

For claim 6, the steps of b, d, and e.

Beuchler from the field of testing discloses the following:

For claim 2, Buechler discloses providing a flag, which may be of a first or a second state, for each of the plurality of test types (see section 0078 “records flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False); if the flag of the test type of the accessed test is in the first state, changing the flag of the test type of the accessed test to the second state (see section 0078 “records flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False”; if a test is accessed / completed it is flagged)

For claim 3, Buechler discloses providing a flag, which may be of a first or a second state, for each of the plurality of test types (see section 0078 “records flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False); if the flag of the test type of the accessed test is in the first state, testing (see section 0078 “records flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False”; if a test is not accessed / completed the flag is not set and test is performed); if the flag of the test type of the accessed test is in the second state, not testing (see section 0078 “records flags...test...flagged...flag...test as being completed”; see D1

page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False”; if a test is accessed / completed it is flagged and test is not performed)

For claim 4, Buechler discloses providing a flag, which may be of a first or a second state, for each of the plurality of tests (see section 0078 “records

flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False”; if the flag of the test type of the accessed test is in the second state, not testing (see section 0078 “records

flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False”; if a test is accessed / completed it flagged and test is not performed)

For claim 5, Buechler discloses providing an injection flag, which may be of a first or a second state, for each of the plurality of test types see section 0078 “records

flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False”)

(e) if the injection flag of the packet class of the test is in the first state, testing (see section 0078 “records flags...test...flagged...flag...test as being completed”; see D1 page 5; “Flag”: A Boolean value which can be “set” to True or ‘reset’ to False”; if a test is not accessed / completed the flag is not set and test is performed) and setting the injection flag of the test type of the accessed / completed test to the second state (see section 0078 “records flags...test...flagged...flag...test as being completed”; see D1

page 5; "Flag": A Boolean value which can be "set" to True or 'reset' to False"; if a test is accessed / completed flag is set).

For claim 6, Buechler discloses repeating the steps of b, d, and e (see section 0078 "records flags...test...flagged...flag...test as being completed"; see D1 page 5; "Flag": A Boolean value which can be "set" to True or 'reset' to False"; if a test is accessed / completed flag is set).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify / combine the features of Kersley by using the above recited features, as taught by Beuchler, in order to provide a method a preventing duplication of testing, thus decreasing wasteful testing time and additional resources used by not performing tests that already have been performed (see Beuchler sections 0078). One could have implemented the teaching of Beuchler to the concept of test packets of Kersley, where flags are kept for the different packet types / combination.

Response to Arguments

Applicant's arguments filed 12/04/2009 have been fully considered but they are not persuasive.

For claim 1, the applicant argues that the combination of Kersey and Buechler does not teach the claimed language of claim 2-6. Specifically, the applicant argues that the claims require a single flag while Buechler disclose multiple flags. The examiner disagrees. It is pointed out to the applicant that the claims does not explicitly state "a single flag", but

merely "a flag". This claimed language does not exclude the possibility of having multiple flags for a packet class, but merely states that there is a flag for a packet class. The applicant argues that Buechler discloses two flags while the applicant uses one flag to perform the decision to test or not to test. The examiner takes the stance that either **one** of Buechler flags discloses this limitation. The flag that is set when a test is accessed (and respectably not set, when it is not accessed) can be used to meet this limitation, since it discloses the method of having a flag for a test with states that indicate OK to test, NOT OK to test, and setting the state when a test is being conducted. Similarly, the second flag that is set when the test is completed can be used to teach the claimed language. Similarly, this flag is set when a test is completed (where further testing duplication is avoided) and conversely if the flag is not set the test is not completed and is ready for testing. Therefore this flag discloses the OK to test, NO test states and also setting the flag when a test is complete. It is implied that this flag is checked to see if the test is completed / is in progress so that test duplication of this particular test is avoided. This teaching corresponds to the claim limitations where the packet is tested if the flag is in a first state (corresponds to not set) and not tested if the flag is set (ie. it has been tested) Thus, the examiner takes the stance that **either one** of these two flag discloses the claimed language of claims 2-5.

Further, the applicant argues that Kersley does not disclose a plurality of packet classes. The examiner disagrees. It is first pointed out no specific explanation of what specific characteristics a "packet class" entails therefore it is open to broadest reasonable interpretation. Further, the specification does not give a description either what specific

characteristics a "packet class" entails. The applicant merely discusses in the background of the invention different protocols and different combination of legal packets. Similarly, Kersley discloses multiple types and variants of packets, having for example different protocols (see fig. 2 section 0043, Ethernet, TCP, IP etc packet classes) and further for each protocol different format and combination of parameters. The examiner takes the stance that these different types of packet types (protocols, legal packet combinations etc) are equivalent with "packet classes". Further the discussion in the background of invention where different combination and protocol and packet classes are discussed are consistent with the teaching of Kersley. The applicant is invited to show where the specification / claims explain what a "packet class" entails and how it is differentiated from the teachings of Kersley.

Lastly, the applicant argues that the combination of Kersley and Buechler would not have been made by a person of ordinary skill in the art. The examiner explained that the implementation of flag, (ie. merely a one bit variable), a simple and well known method of keeping track of a state, could be implemented into the digital system of Kersley and further that it would be obvious to a person of ordinary skill in the art to do so, in order to prevent testing packet types / combination multiple times. Therefore, duplication of testing is avoided (as suggested by Buechler in section 0078) and potential waste resources (processing time, bandwidth in the network, testing duration etc).

Implementation of a flag in a digital / computer system for a keeping a state is fundamental and well known to a person of ordinary skill in the art. Implementing the flags to prevent testing duplication would not change the basic nature of having /

producing different packet classes, but would merely avoid duplication of testing of similar or same packet types / variants.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENAN CEHIC whose telephone number is (571)270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KWANG BIN YAO can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2473

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenan Cehic/
Examiner, Art Unit 2416

/KWANG B. YAO/
Supervisory Patent Examiner, Art Unit 2473